

**Claims**

1. Method for access control in factories,  
having the following steps:
  - definition of access-controlled areas in a factory into which defined objects are not intended to enter,
  - attachment of a transponder to a container, the transponder carrying information with respect to the contents of the container,
  - provision of base stations in the access-controlled areas and,
  - detection by the base station if a container is approaching an access-controlled area into which the contents of the container are not intended to enter, and
  - indication of the non-permitted approach of a container.
2. Method according to claim 1,  
characterised in that  
the access-controlled area is a machine to which containers are supplied.
3. Method according to one of the preceding claims,  
characterised by the following steps:
  - detection of an identification signal of a base station by a transponder attached to a container,

- on the basis of the identification signal, detection by a transponder that the associated container is approaching a non-permitted area, and
  - indication of a warning signal on the container.
4. Method according to one of the claims 1 to 3, characterised by the following steps:
- detection of an activation signal of a base station by a transponder attached to a container,
  - transmission of an identification from the activated transponder to the base station, and
  - emission of a warning signal at the base station if the identification indicates a container which is non-permitted for the area associated with the base station.
5. Method according to one of the preceding claims, characterised in that the transponder and/or the base station determine the distance between them by means of the strength of a transmitted signal.
6. Method according to claim 5, characterised in that different measures are adopted dependent upon the determined distance.
7. Method according to claim 4, characterised in that respectively different frequencies are used for the signal transmission from the base station to the transponder or vice versa.

8. Method according to one of the preceding claims, characterised in that, the base station actualises data stored in the transponder in a wireless manner.
9. Method according to one of the preceding claims, characterised in that data stored in the transponder are indicated directly on the associated container.
10. Method according to one of the preceding claims, characterised in that the transponder has at least two antennae which are orientated orthogonally relative to each other, that antenna which detected the highest signal strength during a previous reception of a signal being used for a transmission.
11. Method according to one of the preceding claims, characterised in that an active transponder with passive emergency operation properties is used.
12. Method according to one of the preceding claims, characterised in that the container is a FOUP.
13. Method according to one of the preceding claims, characterised in that the base stations are connected to a central control system which implements the processing of the transponder data and the localisation of the containers.

14. Method according to one of the preceding claims, characterised in that the transponder is connected via the base stations to the central control system and is suitable for transmitting data to the central control system and for indicating data, received from the central control system, on the container by means of a display.
15. Method according to one of the preceding claims, characterised in that, due to the operating elements attached to the container, read-out, display and transmission processes can be started.
16. Device for implementation of a method according to one of the preceding claims, having the following components: transponder attached to the containers, base stations which are able to transmit signals to the transponder and to receive signals from the transponder, and a central control system which networks with the base stations and is suitable for processing the data received from the base stations.
17. Use of a method according to one of the claims 1 to 12 for controlling the movement of containers in semiconductor production.

Translator's note:

There appears to be an error in the German in line 23 of the first page.